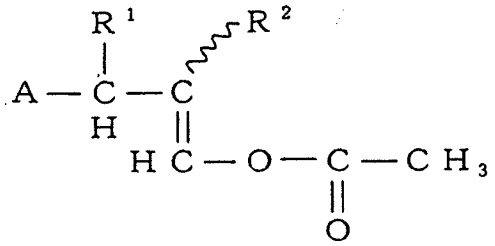
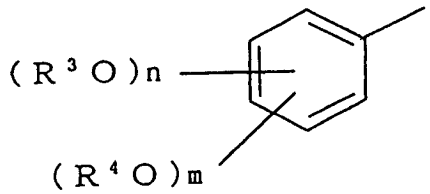
CLAIMS

1. A process for producing a 1-acetoxy-3-(substituted phenyl)propene compound represented by the general formula (I):



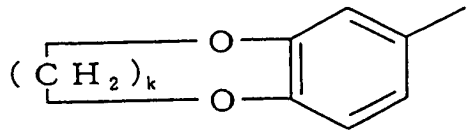
(I)

in which formula (I), R^1 and R^2, respectively and independently from each other, represent a member selected from the groups consisting of a hydrogen atom and alkyl groups having 1 to 10 carbon atoms, R^1 and R^2 may form, together with carbon atoms located in the 2- and 3-positions of the propene group, a cyclic group; and A represents a member selected from a group of substituted phenyl groups represented by the formulae (II) and (III):



(II)

and

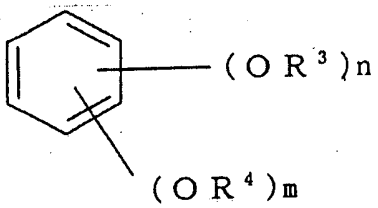


(III)

wherein R^3 and R^4, respectively and independently from each other, represent an alkyl group having 1 to 4 carbon atoms, m represents an integer of 0 or 1 to 4, n represents an integer of 1 or 5 and k represents an integer of 1 or 2,

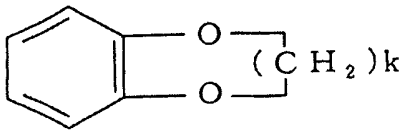
comprising reacting a benzene compound selected from

those represented by the general formulae (IV) and (V):



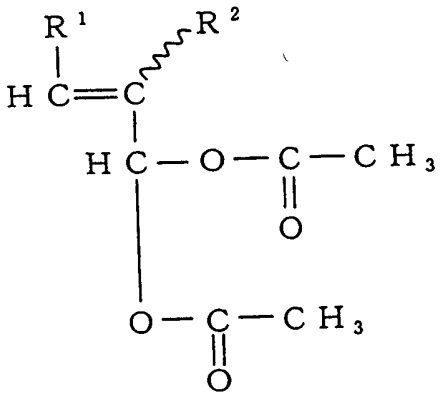
(IV)

and



(V)

in which formula (IV) and (V), R^3 and R^4 and n, m and k are as defined above, with a 2-alkenylidene diacetate compound represented by the general formula (VI):



(VI)

in which formula (VI), R^1 and R^2 are as defined above,

in the presence of a catalyst comprising at least one compound selected from the group consisting of (a) halogenated boron compounds, (b) triflate compounds of Group 11 elements of the Periodic Table, (c) halogenated compounds of Group 12 elements of the Periodic Table, and (d) triflate compounds and halogenated compounds of tin and lanthanoid elements of atomic numbers 58 and 66 to 71.

2. The process for producing a 1-acetoxy-3-

(substituted phenyl)propene compound as claimed in claim 1, wherein the benzene compounds represented by the formula (IV) is selected from the group consisting of anisole, veratrol, hydroquinone dimethylether, pyrogallol trimethylether and hydroxyhydroquinone trimethylether.

3. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the benzene compounds represented by the formula (V) is selected from the group consisting of 1,2-methylenedioxybenzene and 1,2-ethylenedioxybenzene.

4. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the alkenylidene diacetate is selected from the group consisting of 3,3-diacetoxy-2-methylpropene, 3,3-diacetoxy propene, 3,3-diacetoxy-1-methylpropene, 3,3-diacetoxy-2-ethyl propene, 3,3-diacetoxy-1-ethylpropene, and 3,3-diacetoxy-1-ethyl-2-methylpropene.

5. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the reaction is carried out in a molar ratio of the benzene compound to the alkenylidene diacetate compound of 1:1 to 50:1.

6. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the catalyst is present in an amount of 0.005 to 1 mole per mole of the alkenylidene diacetate compound.

7. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the halogenated boron compounds (a) usable for the catalyst are selected from boron fluorides, boron trifluoride-diethylether complexes, borontrifluoride-tetrahydrofuran complexes, boron trifluoride-acetic acid complex salt, boron trifluoride dihydrate, and boron trifluoride-n-buthylether complexes.

8. The process for producing a 1-acetoxy-3-

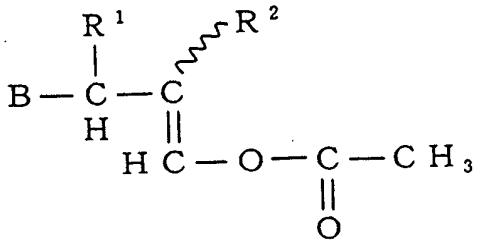
(substituted phenyl)propene compound as claimed in claim 1, wherein the triflate compounds (b) of Group 11 elements of the Periodic Table usable for the catalyst are selected from the group consisting of copper triflate and silver triflate.

9. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the harogenated compounds (c) of Group 12 elements usable for the catalyst are selected from the group consisting of zinc fluoride, zinc chloride, zinc bromide, zinc iodide, cadmium fluoride, cadmium chloride, cadmium bromide, cadmium iodide, hydrogen fluoride, mercury chloride, mercury bromide, and mercury iodide.

10. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 5, wherein the triflate and halogenated compounds (d) of tin and lanthanoid elements of atomic numbers 58 and 66 to 71 are selected from the group consisting of triflates, fluorides, chloride, bromides, and iodide of tin, cerium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium.

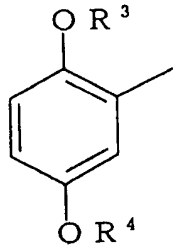
11. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the reaction is carried out in an atmosphere consisting of a nonreactive gas to the above-mentioned compounds of the formulae (IV), (V) and (VI), the above-mentioned catalyst and the resultant reaction products.

12. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the compounds of the formula (I) are selected from the compounds represented by the general formula (VII):



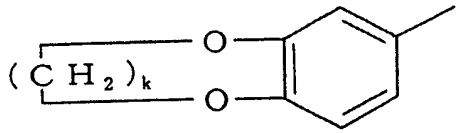
(VII)

In which formula (VII), R^1, R^2 are as defined above, B represents a member selected from a group of substituted phenyl groups represented by the formulae (VIII) and (IX):



(VIII)

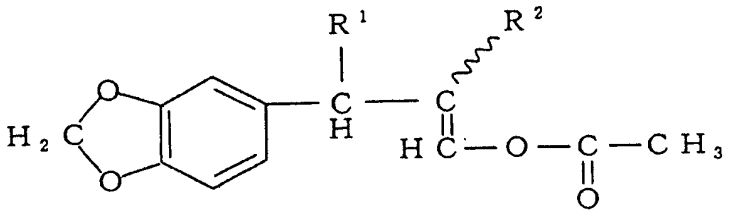
and



(IX)

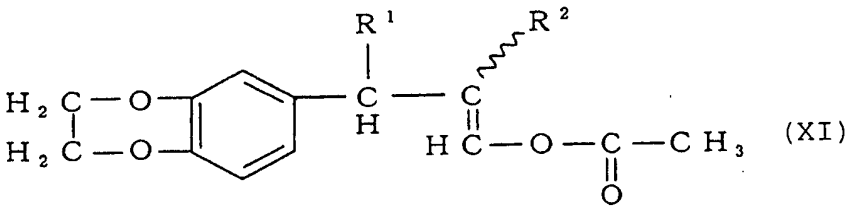
In which formulae (XIII) and (IX), R^3 and R^4 and k are as defined above.

13. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the compound of the formula (I) is selected from 1-acetoxy-3-(3,4-C1 to C2 alkylene dioxyphenyl)propenes represented by the formulae (X) and (XI):



(X)

and



(XI)

14. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 12, wherein in the formulae (X) and (XI), R^1 represents a hydrogen atom and R^2 represents a methyl group.

15. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the compound of the formula (I) is selected from the groups consisting of 1-acetoxy-2-methyl-3-(3,4-methylenedioxyphenyl)propene, 1-acetoxy-2-methyl-3-(3,4-ethylenedioxyphenyl)propene, 1-acetoxy-2-methyl-3-(4-methoxyphenyl)propene, 1-acetoxy-2-methyl-3-(2,5-dimethoxyphenyl))propene, and 1-acetoxy-2-methyl-3-(3,4-dimethoxyphenyl)propene.